

# XXVII LA JOLLA ENERGY CONFERENCE

## Summary Report and Panel Notes



**XXVII** LA JOLLA  
**ENERGY** **2018**  
CONFERENCE



## XXVII La Jolla Energy Conference – Summary Report and Panel Notes

### Intro

For almost 30 years, the Institute of the Americas has convened an annual energy summit at its home in La Jolla. Due to the Institute's reputation as an honest broker of dialogue, the La Jolla Conference allows a wide range of stakeholders to debate the key energy and sustainability trends in the Americas. Each May a distinguished group of thought leaders, investors and government officials convene with leading industry players in La Jolla for high level investment discussions, dialogue and policy debate. This year's conference - an intense two days of panel discussions complemented by sidebar and after-hours debates - underscored the wide variety of challenges and opportunities facing the energy and environmental players across the hemisphere and globe.

From regional elections to the ongoing global energy transformation, important energy market developments in Argentina and Mexico and the continuing crisis in Venezuela, this year's discussions again served to foster high-level public-private dialogue on the future of the hemisphere's energy sector. What follows are summaries and notes compiled based upon the public panels and sessions held during the 2018 La Jolla Energy Conference; our new format introduced several off-the-record breakout sessions that are not detailed here in order to honor the nature of those sessions and discussions.

### **The Exercise of Regulation: Balancing Oversight, Technology Advance and Investment for Markets in Transition**

This panel discussion centered around finding the optimal balance between investment and regulatory oversight, which the panelists agreed is a fragile equilibrium. Andres Chambouleyron, Chairman of Argentina's Federal Electricity Regulatory Authority (ENRE), described Argentina's regulatory institutions, which are returning to normalacy after being suspended for 15 years by the Kirchner administrations. He emphasized that regulators encourage firms to invest the optimal amount to achieve compliance without dictating specifics of where to invest and how much— he called it “regulation of results.”

According to Guillermo Ignacio Garcia Alcocer, Chairman of the Mexican Energy Regulatory Commission (CRE), both Mexican energy regulators and the country's wider energy industry are in the midst of being reborn in the wake of the Mexican constitutional energy reform and ongoing technological change. He stated that regulators need to closely follow these developments awhile staying neutral and transparent so that they do not become an obstacle to the development of new technologies.

Carlos De Regules, Executive Director for the Mexican Agency for Security, Energy and the Environment (ASEA), concurred with Garcia that the energy industry is changing rapidly and that the regulatory model needs to accommodate this change. A responsive regulatory model must balance regulation with flexibility, be performance-oriented and allow industry to manage its own risk, assign inspectors strategically, and be corrective rather than just punitive.

According to Jaime Martinez, the Business Development Director of Environmental Resources Management (ERM) Mexico, this regulatory strategy has had positive results and streamlined permit applications by energy companies. He stated that there has been no compromise on requirements of regulations but in the timing there has been flexibility. The balance has been positive, he asserted, but not free of challenges. He admitted that there is still room for improvement.

The need for regulators to stay neutral was a common theme. De Regules explained how the role of regulator is actually to balance the negative externalities of the industry with the benefits of the users stating that sound and long-term decisions, perhaps are not very popular, but are focused on the outcome. Martinez described the aforementioned equilibrium as “making sure that nobody wins everything and nobody loses everything.” Garcia agreed that regulators cannot choose winners or losers and stressed the need to allow competition between all technologies. The panelists consistently agreed that finding the optimal combination between sticks and carrots is key to effective regulation, particularly during these times of rapid changes in the energy sector.

### **The Future of the Oil & Gas Industry in the Americas: Bid Rounds, Optimization, Innovation and Managing Costs and Empowering Communities**

While innovation and increased transparency is drawing new interest to the Latin American oil and gas industry, panelists also noted challenges facing the sector.

Raphael Moura, Upstream advisor to the Board of Directors for the Brazilian National Petroleum Agency (ANP), shared the impressive success of recent bidding rounds for Brazilian offshore oil exploration blocks. Over \$2.4 billion worth of blocks had been successfully auctioned to over 12 international companies from 10 different countries. Moura underscored that Brazil’s conventional and pre-salt oil and gas resources are some of the most impressive offshore assets in the world and Brazil is a strong environment for oil and gas investment in the long term. He also noted that regulatory changes at ANP have reorganized the agency to streamline the bidding process and increase investment. He also commented that their estimates point to a plateau in oil demand only coming by 2040. Despite today’s talk of peaking demand for oil ANP estimates that global demand for petroleum will continue to rise until 2040, Moura noted.

Sierra Oil and Gas director Gabriel Heller Green shared insights gleaned from his experience investing in the Mexican oil and gas sector. Sierra Oil and Gas was founded in 2014, the same year that Mexico's constitutional reforms opened the country's energy sector to foreign investment. However, operating in Mexico remains challenging. Slow-moving bureaucracy hampers foreign firms and the global price of oil fell dramatically after the reform, slowing new investments. He also noted that there is a lack of infrastructure in Mexico which is detrimental to production goals.

Brandon Simmons, Chief Operating Officer of Tachyus, a Silicon Valley technology startup focused on the oil and gas sector, believes that innovative software can make the industry more efficient. While data on oil and gas company operations is widely available, there is often few good ways to integrate data into decision making. For effective data integration, the entire company from executives on down must wholeheartedly committed data-driven decision making.

Soledad Mills, CEO of environmental standards firm Equitable Origin, argued that community engagement is vital for oil and gas companies' risk management. Effective community engagement, especially with indigenous communities, provides a better long-term business climate for the industry through fostering informed consent rather than conflict.

Walter Pesenti, Senior Vice President at Nathan Associates, argued that firms can ensure maximum value through asset, organizational, and safety optimization. However, while digitation and data collection are valuable they can only increase firm value if aligned with the company's goals.

### **The Gulf Region and the Global Energy Transition: Threat or Opportunity and Implications for Latin America**

How can oil-exporting countries adapt to the global energy transition to clean energy?

During this panel David Hobbs, Vice President at the Saudi Arabian King Abdullah Petroleum Studies and Research Center, and Aldo Flores Quiroga, Deputy Secretary of Energy for Hydrocarbons at the Mexican Energy Secretariat, discussed how Persian Gulf countries plan to cope with the rise of renewable energy and how Latin American energy producers can learn from these strategies.

The view from Saudi Arabia, David Hobbs contends, is that the rise of renewable energy is both a threat and opportunity for oil-exporting countries and what matters is how these countries respond. Saudi Arabia specifically has enormous solar energy resources and a young population outgrowing oil revenue's potential to sustain the Kingdom's standard of living. Neighboring Abu Dhabi has built world-class competitive industries that can support the Emirates in a changing

market, and Saudi Arabia's "Vision 2030" plan aims to build a diversified economy as a hedge against declining oil demand. Solar energy has particular potential since replacing Saudi oil-fired domestic electricity generation frees up more oil to sell abroad—remember, OPEC imposes a production quota, not an oil export cap.

Aldo Flores Quiroga agreed that of course renewable energy is both a threat and an opportunity for Latin American energy-producing countries. In Mexico, there is strong legislative support for renewable energy, and three rounds of renewable power auctions have driven nearly \$9 billion in clean energy investments. Mexico's strong manufacturing economy also gives it potential to develop a domestic renewable power manufacturing sector.

Despite this rosy picture both panelists expressed some doubts about how deep the global transition to clean energy will go. David Hobbs quipped that in a mirror image of previous "peak oil" fears today we may be at "peak peak-demand discussion" and that demand for oil may remain roughly unchanged even with a global price on carbon. If renewable energy forces down the price of oil it is the high-cost producers such as deepwater offshore production and Canadian oil sands that will be displaced, not low-cost Persian Gulf production. Aldo Flores Quiroga added that discussions of peak demand for oil may be an after-effect of the Great Recession: the 'technology' that has done the most to reduce emissions is not renewables or efficiency but instead economic recessions, and demand for energy in a fully-recovered global economy could look very different than the last decade.

### **Mexico's Energy Sector and Market Development: Understanding the present and debating the future**

A robust panel and discussion of the achievements to date of Mexico's energy reform, the rapidly evolving segments of the nation's energy sector all against the backdrop of pending elections in July. Aldo Flores Quiroga, Deputy Secretary for Hydrocarbons, noted that after 3 years of extensive efforts by government, industry and many stakeholders, the progress is extremely encouraging. He further mentioned the strong level of interest in Mexico's energy market and particularly hydrocarbons. He did, however, concede that one of the key challenges remaining is for, across the government, to improve interagency coordination; the old and new regulations are still overlapping so the processes by which we implement regulations still need to be fine-tuned. Moreover, he commented that as part of the reform process Pemex is going thru its own process of transformation, a cultural shift; Pemex needs independence as it builds a new business model. Chris Sladen of BP Mexico suggested that their analysis of Pemex's current acreage portfolio is insufficient for the company to sustain a 3 million barrel per day production outlook or goal.

Carlos De Regules, the Executive Director of ASEA, complemented Aldo Flores' remarks and underscored that the energy reform had created a new energy reality in Mexico. According to

De Regules, more than 100 contracts have been awarded and with regards to the touted oil blocks licensed, they have an average of 74% government take which goes towards public finances in Mexico. He further noted that there used to be no regulations regarding industrial safety and today over 30 regulations have been issued. He proudly stated that they have been able to harness the risks under programs that aim to close the risk gaps and discussed the resolution of issues, and a good success rate, using tribunals. He was confident that with the reform and the evolution of the market and a wide range of stakeholders, Mexico is in the process of seeing a new paradigm of environmental institutions that are important to the future.

Chris Sladen, BP Mexico, noted that the energy sector is a long term business and decisions made often take 10-15 to see the full extent of results. Therefore, Mexico's dropping oil production, sagging exports, fuel imports and the overall underinvestment of the last decade or so can be directly traced to decisions made many years before. Thus it should be noted that while the energy reforms in Mexico have begun to bear fruit, the true extent of the decisions and implementation will not be seen for some years. Indeed, due to the reforms, the scale of investment that is now coming to Mexico is an effort to address these negative trends.

With regards to the electric sector in Mexico, Katya Somohano CEO of CFE Calificados, noted that it has been nearly two years since electricity market opened, and the grid is developing better and better every day. She emphasized the nature and depth of change that has taken place in Mexico's electric market, particularly in terms of a major legislative effort to boost clean energy deployment. She underscored her confidence that all the new power that will be added to the system, including renewables, will translate to a reduction in the cost of the system in about 18 months, something we should celebrate as a success she said. She also discussed the importance of the government's efforts to enhance Mexico's transmission infrastructure and network. She noted that the introduction of new transmission lines will have a significant impact on electricity grid. Moreover, she said that these efforts are key to integrating the country and, she noted, integration for more than political purposes but also for economic reasons. Enrique Marroquin, President of Hunt Mexico, commented that electric integration between the US and Mexico remains scarce and thus a huge opportunity. He remarked that the physics of electrons make integration difficult because you cannot control the electrons. Beyond that challenge, he noted that there have been no incentives to build transmission lines and, perhaps most importantly, regulations aimed at international integration of electric markets is still not complete. He summarized his key thoughts by saying there is a lot of work left to be done to integrate the Mexico and US electrical market.

Lucas Aristizabal, Senior Director at Fitch Ratings, agreed with all the panelists and shared their comments and feelings as to the success of the energy reform in Mexico. In particular, he noted that the energy reform has been very successful due to its transparency. However, he focused his remarks in a bit different fashion and chose to speak about the role of CFE and Pemex. In his

view, CFE and Pemex play very important roles in the energy reform. Pemex is a key strategic supplier of 90% of all liquid fuels, regardless of the market being open. CFE is retaining the monopoly position in distribution. Its credit quality is very important to generation while Pemex's credit quality is crucial for the hydrocarbons and fuels market. He calculated Pemex debt level at roughly \$105 billion which he said is simply not sustainable. One example of the impact is with regards to the increasing need for Mexico to import fuels due to chronic underinvestment by Pemex. He added that the sociopolitical and financial implications of relying on Pemex with \$105 billion of dollars in debt is huge; Mexico needs a stronger Pemex. On the positive side, Aristizabal noted that CFE's credit rating on a stand-alone basis is more solid.

### **How far can or should renewables go as part of the region's energy mix?**

In 1994, Chile began to liberalize its economy and take the businesses out of court and litigation processes that had bogged down the business climate. This yielded the path for new and innovative technologies to invite investment into Chile.

In Argentina, according to Dario M. Febre, VP of Business Development at ENGIE, renewables are a long-term solution rather than a short term one. Additionally, at this technological stage, renewables should be complemented with other types of energy generation. Green storage techniques are better suited to complement renewable generation than "black" energy like LNG. It is time to shift our mindsets to accept that renewables are here to stay in the long term. The industries surrounding energy generation and distribution should be constantly evolving with these new technologies. It is not a company's place to be picky with technology, it is the job of said companies to bring the best available technology to the consumer. While the speed of change is constant and fast, the focus should consistently be on the consumer. By promoting centralized solutions to energy, i.e. rooftop solar, the consumers have a greater overall benefit.

Michael Harrington, Partner of Energy Actis, focuses on financing for energy in emerging markets. He has had a hand in installing over 7,000 Megawatts (MW) in Latin America including 4,000 MW of renewable energy capacity. So where does renewable technology stand today? Since 2010, costs have decreased 80%. Regulation in Brazil, Mexico and Argentina have shifted to better provide renewable investment. This has been accomplished by allowing for new systems and processes such as auction systems.

However, despite these advances both in technology and regulation, there remains considerable bottlenecks for renewables. Getting to 100% is perhaps possible in our lifetimes, but definitely not in the short to medium term. Batteries can help defer storage costs. Installed battery storage is currently at approximately 2.6 MW globally. A solar-battery solution is roughly 3-6 times more expensive than a standalone battery system at about \$150 per MW hour, thus not yet a feasible solution.

Amanda Maxwell, Director of the Latin America Project for the NRDC, noted that Latin America generates roughly 10% of global CO<sub>2</sub>. Despite this, climate change was scarcely mentioned at a previously held Latin American Energy Conference. Despite this, Latin America is one of the most vulnerable areas to climate change. Surveys show that a large portion of Latin Americans are very passionate about climate change. Therefore, there should not be a gap between climate change and Latin American energy policies. Local factors should be included in the economic criteria of energy generation and distribution. The case for renewable energy should include arguments for both reduced carbon emissions and energy security.

Jorge Barrigh, Chairman of the Board at LAC-CORE, sees renewables as a shift to the mainstream. A few years ago, many utilities were not interested in renewables, however this has changed dramatically. What has made renewables more attractive? The Dominican Republic has shown a hurricane-ready electric grid due to renewable integration. Renewables are now getting funded and have advanced to a high technological level, but political reasons often get in the way of further implementation. For certain grids, renewables are difficult to integrate. As we seek efficiency of the grid, community acceptance and our climate change objectives will play key motivating factors for renewables. As analytics become more available and valuable, we should integrate them into our grids to maximize efficiency.

Adam Borison, Senior Vice President of Nathan Associates, sees a large demand growth for non-OECD countries. There is a huge market in these countries and renewables will play a large role. Renewables will most likely partner with Natural Gas, but two issues inhibit this goal. 1) Without storage, there is only so much you can do with cyclical renewables, and there is too much optimism with utility scale battery storage. 2) There are talks about resilience, to what extent will these hybrid green grids handle hurricanes, storms, and other idiosyncratic events.

### **Natural Gas & LNG Plenary: The Continued March of Unconventionals and Evolving Global Market**

The panel discussed to what extent natural gas would play a role in fulfilling energy needs of the world in the next two decades.

Elizabeth Urbanas, Deputy Assistant Secretary for Asia and the Americas at the United States Department of Energy began the conversation by giving the forecast for the United States and the Western Hemisphere, citing a projected 41 percent increase in the consumption of natural gas between 2017 and 2040 with increases in Latin America due to an uptick in transportation. Gas consumption has increased in the Middle East and Asia as well, and thanks to, in her words, the United States' tendency to innovate and improve in technology, financing, and contracting flexibility, it has become the third largest exporter in the world. She predicted that exports to Latin America are likely to grow due to location, stating that in a hemispheric security perspective, it is in the region's interest to link up.

Mauricio Roitman, President of ENARGAS, Argentina's natural gas regulator, explained natural gas from Argentina's point of view. The country is attempting to go "back to the future" by restoring the rule of law, boosting domestic natural gas production, improving production, and improving energy security. Roitman stated that in order to transform resources into results the current administration is normalizing the natural gas market, incentivizing short-term production to help companies learn, optimizing relations with neighbors, and reviewing the regulatory framework. With these policies, shale gas production has been growing rapidly and he hopes by 2021 Argentina will be a net exporter of natural gas.

Edgar H. Guevara, Managing Director of Latin America at Solar Turbines, concurred with Urbanas' claim that natural gas is growing by citing evidence from his perspective in the private sector. He asserted that he has seen growth in Mexico since its energy reform launch, resurgence in Brazil with offshore development, and Argentina beginning to develop its natural gas industry and relying less on Bolivia. However, Latin American markets are competing with the stable and established U.S. market. Guevara projected that those with limited funds or project opportunities will manifest in Latin America only so far as the United States will allow it.

Carlos A. Sole III with the Baker Botts law firm gave a contrarian perspective to the other panelists. He claimed that although the LNG market in the United States used to be booming, it is now a more modest long-term opportunity due to a variety of circumstances. He asserted that the level of imports dropped slightly last year thanks to the disruptive impact of renewables auctions and their more competitive rates. He predicted that the Mexican export market may be affected by the billions of dollars invested in pipeline and that the LNG terminal projected to go online this September in Panama will be smaller scale than what would have been forecasted a few years ago. All agreed that the industry is constantly shifting and changing.

### **Venezuela: Where do we go from here?**

This session brought together several panelists to give an assessment of the current situation in Venezuela, and what the future may bring.

David Voght described the economic and geopolitical challenges faced by the country, emphasizing the collapse of national oil company PDVSA and Venezuela's oil industry. PDVSA production has declined precipitously and output from PDVSA joint ventures with foreign firms has not been spared. PDVSA's management is inexperienced, and the company has lost human resources and technical knowhow. Venezuelan oil production is drilling intensive, and Voght noted the number of active rigs have fallen by nearly 50 percent between January 2016 and April of this year. The very heavy crude produced in Venezuela's Orinoco Belt requires diluent to be transported, which the country has no money to buy. Venezuela also owes \$10 billion

worth of oil in in-kind payments to Russia and China, and it is not clear how this debt will be paid.

Francisco Monaldi provided some historical trends for the collapse in production, noting that production was about 3.45 mbd under Chávez, fell to 2.7 mbd under Maduro, and currently sits at approximately 1.4 mbd. Control of PDVSA has been given to the National Guard, which in addition to being the “least competent” Venezuelan military branch has no technical or management knowledge in the company. Venezuela is currently in selective default, and will likely be in full-default soon as sanctions against the country are tightened and international arbitration-ordered asset seizure in the Caribbean take effect. Monaldi warns that the traditional path of crises like Venezuela’s—negotiations to ease sanctions, debt restructuring, and IMF assistance—seems impossible under Maduro. The alternative is continued collapsing production and the eventual departure of all foreign firms. By next year Venezuela is on track to produce less oil than Colombia, and the question is whether the Maduro government can survive with minimal oil exports.

Raul Gallegos offered insight into the mentality and decision-making process of the current regime, describing it as a joint venture between left-wing radicals and corrupt cliques that the leftists have co-opted by offering access to money and resources. Gallegos argues that Chavistas have a totalitarian view of power, feeling the need to exercise tight control over every sector and individual, and tolerating foreign investors only so long as they are useful. For Chavistas, crises are an opportunity to gain more control, and power comes from force. Chavistas have paid off Venezuelan generals for years now and can now demand loyalty, and this corruption has transformed the military into defenders of the revolution. Incredibly for the Chavista government economic recovery and rebuilding the oil sector are not a priority; instead, the focus is on maintaining political control.

Jason Fargo offered more analysis of Venezuela’s financial predicament. A recent decision by the International Chamber of Commerce in favor of ConocoPhillips opens PDVSA assets in the Caribbean to seizure, including diluent critical to exporting Venezuelan crude. Foreign companies are refusing further engagement in Venezuela and wary of potential legal liability under US sanctions. Creditors have so far avoided pressuring Venezuela in the hopes the country could avoid an outright default, but this “wait and see” approach seems to have run its course and creditors are beginning to organize. Sinopec sued Venezuela last year, and both the Chinese and Russians appear reluctant to provide further financing.

Together, the panelists described a dire situation. The Maduro regime is running out of money to pay off the generals, hundreds of officials were arrested after a coup attempt, and foreign officials including Colombian President Santos have called on the Venezuelan military to overthrow Maduro. Refugees fleeing from Venezuela to Colombia are a looming humanitarian crisis. Given such trends, the only foreign companies that will be left in Venezuela are Russian

and Chinese firms used to working under hyper-regulated regimes. Nevertheless, the panelists believe Maduro will remain in power until at least the end of the year, because Russia (and to a lesser extent, China) will continue to support the regime, as long as this support is not too costly.

### **Argentina: Normalization and the Macri Administration's Energy Reform Agenda**

Much of the conversation in regard to Argentina's energy situation focuses on its current process of "gradualismo." The Macri government is in the process of bringing energy prices in the country back to equilibrium and ending the high subsidy programs in the sector. When the Macri government came to power, it was estimated that restoring market prices would mean electricity price increases of nearly 2000% in the country. In order to avoid this type of "shock therapy," the government decided to gradually lessen subsidy programs, and this process has largely been viewed in a positive light by both the government and economists.

By opening Argentina's energy sector, the government is hoping to bring in investment to help develop its energy resources in oil, gas, and clean energy. Argentina boasts the fifth highest potential for clean energy in the region, yet only two percent of its potential is currently being used. Akin to Mexico's recent energy reform, Argentina is hoping to restore market principles to its energy sector in order to gain the confidence of outside investors. Lack of investment in Argentina's energy sector has meant that it has been forced to import gas from Chile during winter months despite the fact that Argentina has some of the largest gas and oil reserves in the world. In addition to convincing outside investors, the country needs to convince its people that higher energy prices are in the country's best interests. The process of "gradualismo" helps to ensure that outside investors can feel increasingly secure in investing in Argentina while simultaneously helping to transition the social culture of Argentina away from one of "free energy."

### **Energy Reform, the Election and the Future for the Energy Sector in Mexico**

Duncan Wood opened with an overview of the current political context, noting that the Mexican election will take place in approximately one month. Lopez Obrador is leading by anywhere between 6 and 20 points in the polls, and is the favorite for all demographic groups. Even though the 2013 energy reforms are constitutionally protected, if Lopez Obrador also gets victories in Congress and governorships across the country, he will appear to be a president with a strong mandate, and dubious of the previous energy reforms.

John Padilla provided more detail about the situation of Pemex. While the Mexican government recognized they needed more outside capital, the legal framework only allowed them to undertake service contracts, and these dynamics remain today. Pemex has taken on more debt, and analysts believe that a rise in oil prices alone will not save the company.

Pemex's CEO has just refinanced approximately \$4 billion, and 25% of that debt will be due over the next 3 years; a credit downgrade may be looming in the future. Production has fallen 682,000 bpd since 2012 (over 5.8% per year), and refining capacity has fallen from 72% in 2014 to 32% in 2018. Analysts believe it would take both oil at \$90/barrel and fiscal reform for the company to survive.

The discussion then turned to the role that the reforms and its shortcomings may play in the political sphere leading up to the election. Wood and Padilla have recently authored a report entitled, *"Mexico's New Hydrocarbons Model: A Critical Assessment Four Years Later,"* and while they found that there have been some positive aspects of the reforms, many experts and industry actors were dissatisfied and have negative views of the changes. Padilla mentioned national content requirements and regulatory burden as particularly problematic. He also pointed out that even though there has been significant (primarily upstream) investment, this has not necessarily created a competitive market, given the fact that there are still only two large players controlling much of the infrastructure.

Lopez Obrador comes from the oil state of Tabasco, so the energy sector is personal to him, and he can use the failure of the reforms as part of his political message. Both Padilla and Wood highlighted the sharp discrepancy between the promises in 2012 that the reforms would result in more jobs and oil production, and today's reality of both lower oil prices and production, and the loss of over 100,000 jobs between Pemex and service companies. However, Wood opined that while the parties may use the issue to convey a message of the failure of the current government, and average Mexican citizens may not think the reforms have been successful, they are unlikely to protest or vote based on this particular issue. In a time of significant population growth, the issues driving people toward Lopez Obrador are jobs, corruption and security.

Wood and Padilla suggested that instead of reversing the reform, as it is feared that Lopez Obrador may try to do, the better solution would be to double down. While Lopez Obrador wants Pemex to do everything as it did in the past, including perhaps recapturing its refining capabilities, Wood noted that it might be better for the company to consider the opportunity cost of taking on new functions and instead streamline its operations. Padilla also pointed out that there has also been some talk of capping fuel prices and adding subsidies back into the system, but it is not clear where the financing could be found.

Polling among the participants skewed slightly in favor of those who believed the reforms could be rolled back, but it is not clear that this would happen if the circumstances allowed. Lopez Obrador has said that if elected, he would not seek any constitutional amendments in the first three years because of the number of elections that would be taking place; however, he has also said that there will be no new bidding reforms, and the uncertainty of the situation may slow or stop further foreign investment. Pragmatically, Wood noted that rescission of existing

contracts would be unlikely, as there is a feeling that agreements made with big companies are generally satisfactory, and the benefits of increased production and royalties would accrue to Lopez Obrador's government. Unlike the situation in the 1970s, Mexico is now an open market whose growth is driven by foreign direct investment; contract violations and exploding deficits and debts will have a much greater impact. Regardless of ideology, Lopez Obrador will still have to deal with the fiscal reality and the reaction of international markets, and difficult decisions will have to be made.

*The Institute of the Americas would like to thank and recognize the efforts made by our rapporteurs in preparing this report. From the University of San Diego Masters in International Relations Program: **Iden Emam, Kelly Wehle, Maximilian Aviles, Rita Kuckertz, Daphne Blanchard and Lucy Clement La Rosa.** From the UC San Diego Graduate School of Global Policy and Strategy (GPS): **Taylor Marvin, Gabriela Rubio-Moreno, Juliette Syn, and Michael Hard .***